Amendments to the Specification

Page 11, please replace the paragraph starting at line 15, and continuing to Page 12, line 2, with the following paragraph:

FIG. 5A illustrates the content of the journal log table 112. The journal log table 112 as illustrated in FIG. 5A contains information included in or related to the sequence of write I/Os issued by the host to the PV 103. This information includes data stored according to a plurality of different fields including group identification (ID) 510 a unique identifier for the group of journal logged snap shot volumes, sequence number 511 a current sequential number for the journal log, time 512 the time/date when the journal log was stored, primary volume ID 513 a unique identifier for the primary volume 103, address 514 an address on the primary volume 103 where the data is stored, length 515 providing information of the length of the data being stored, log volume ID 518 providing an identifier of the volume at which the journal log is stored, and address 519 providing an address of the log volume where the current journal log is stored.

Page 12, please replace the paragraph starting at line 2, and continuing to Page 13, line 8, with the following paragraph:

In place of or in addition to the journal log table 112 a journal function management table 115 could also be provided and as such could be stored in memory accessible by the storage controllers 301 and 303. The journal function management table 115 can be used for managing the process of taking journal logs and the process of recovery using the journal logs. The journal function management table 115 stores information regarding journal logs according to various

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fields including group ID 601 providing a unique identifier for the group of journal log volumes, sequence number 611 providing a sequence number of the current journal log, primary volume ID list 612 providing a pointer to the stored area of the primary volume, primary volume number 613 providing a number of the primary volume to which the group of journal log volumes belongs, journal log volume ID list 614 providing a pointer to the stored area of the journal log volume information, journal log volume ID number 615 providing a number of the journal log volumes belonging to the group, T-CLID 618 providing an ID of the journal log volume where the next journal log is to be stored, T-CLARD 619 providing an address of the journal log function management table where the next journal log is to be stored, D-CLID 620 providing an ID of the journal log volume where the next journal log is to be stored, D-CLARD 621 providing an address of the journal log where the next journal data is to be stored, Stat 622 providing a status of the journal mode, whether journaling or recovery is being implemented, Rcvr-tbl 623 providing a pointer to the address of the journal log and data area information for recovery, T-CLID 628 providing an ID of the journal log volume where the next applied journal log is stored, T-CLARD 629 providing an address of the journal log area where the next applied journal log is stored, D-CLID 630 providing an ID of the journal data volume where the next applied journal data is stored and D-CLARD 631 providing an address of the journal data area where the next applied journal data is stored. It should be further noted that PIDL 612 could, for example, include additional fields such as PVID 624 and NIPD 625. Further, LIDL 614 could also include further fields such as LID 626 and NLID 627.

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Page 14, please replace the paragraph starting at line 23, and continuing to Page 15, line 13, with the following paragraph:

FIG. 6 is a flowchart of the process of recovery of data on the primary volume 103 based on the old data 114 and journal logs as represented by the journal log table 112 according to the present invention. As illustrated in FIG. 6, the first storage system 101 receives a recovery request so as to recover data on the primary volume 103 from the local secondary volume 109 (step 601). So as to perform this recovery the present invention applies the journal logs obtained according to the journal ~~log~~ function management table ~~113~~ 115 and/or the journal log table 112 sequentially to the old data 114 with the result being stored in the primary volume 103 so as to roll back the primary volume 103 to a certain in time volume image (step 602). In addition, according to the present invention, the data as written to the primary volume 103 so as to roll back the data on the primary volume to a certain point in time volume image, is sent to the remote secondary volume 106 (step 603). Based on the data sent from the primary volume 103, the remote secondary volume 106 is also rolled back to a certain point in time volume image corresponding to the primary volume 103 (step 604).

Page 16, please replace the paragraph starting at line 3, and continuing to Page 16, line 15, with the following paragraph:

As illustrated in the flowchart of FIG. 7E, when the first storage system 101 receives a request for recovery of the primary volume 103 to a certain point in time (step 701) a corresponding request is also sent to the second storage system 102 so

as to initiate background recovery on the remote secondary volume 106 (step 710).

Continuing from step 701 the first storage system 101 searches the journal ~~log~~

function management table ~~113~~ 115 and the journal log table 112 so as to find the

sequence number to recover a certain point in time image of the primary volume 103

(step 702). Once the sequence number is obtained, the journal logs are applied to

the base volume 105 (step 703) until recovery of a certain point in time image is

reached as illustrated in FIG. 7B (step 704). Thereafter, the first storage system 101

waits for a notice that the recovery process on the second storage system 102

including the remote secondary volume 106 has finished (step 705).